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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,047	01/08/2001	Takuji Goda	K-1951	6751

7590 10/08/2002

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EXAMINER
PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
1775	7

DATE MAILED: 10/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-7

Office Action Summary	Application No.	Applicant(s)	
	09/755,047	GODA ET AL.	
	Examiner	Art Unit	
	Andrew T Piziali	1775	

-- The MAILING DATE of this communication appears on the cover sh t with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 8/29/02 .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-10 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The applicants do not appear to have basis in the original disclosure for a barrier film formed on a "substantially entire outer surface" (as claimed in Claims 1 and 8). In addition, the applicants do not appear to have basis in the original disclosure for a barrier layer not operating as an electrode (as claimed in Claim 1). Any negative limitation or exclusionary proviso must have basis in the original disclosure. See *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of positive recitation is not basis for an exclusion. See MPEP 2173.05(i).

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. It is not clear what a "substantially entire outer surface" represents (as claimed in Claims 1 and 8).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,808,715 to Tsai et al.

Regarding claims 1-5, Tsai discloses a liquid crystal display glass article comprising an alkali-containing glass substrate, a TiO_2-SiO_2 composite under layer, an ITO layer, and a TiO_2-SiO_2 insulating film in that enumerated order (column 4, lines 15-32).

Regarding claims 4-5, Tsai does not mention the surface electrical resistance of the insulating film, but considering that the insulating film comprises a highly resistant composite of TiO_2-SiO_2 (column 4, lines 15-32 and column 6, lines 16-18), and since the material is substantially identical to the material suggested by the applicant (see applicants' specification on page 11, lines 10-13), the film would inherently possess an electrical resistance within the range of 1.0×10^6 to 1.0×10^{16} Ω/ even after a heating process at 550C for 1 hour.

Regarding claims 9 and 10, Tsai discloses that the barrier layers (14a) may be an ITO layer (column 4, lines 3-49). An ITO layer consists mainly of indium oxide.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,808,715 to Tsai et al. and in view of US Patent No. 6,034,474 to Ueoka et al.

Tsai does not mention forming an electrode film on the liquid crystal display glass article, but Ueoka discloses that it is known in the art of liquid crystal/plasma displays to deposit a silver layer on the surface of a glass article comprising a glass substrate and ITO layer, to form an electrode bus that enables the electrode to have a lowered electrical resistance (column 1, lines 31-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to deposit a silver layer on the glass article of Tsai, because the silver layers form an electrode bus that enables the electrode to have a lower electrical resistance.

9. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,808,715 to Tsai et al. and in view of US Patent No. 5,548,186 to Ota.

Tsai does not mention forming an electrode film on the liquid crystal display glass article, but Ota discloses that it is known in the art of liquid crystal/plasma displays to deposit a silver layer on the surface of a glass article comprising a glass substrate and transparent conductive film such as tin oxide, to form an electrode bus that lowers the electrical resistance of the article (column 1, lines 12-26 and column 3, lines 1-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to deposit a silver layer on the glass

article of Tsai, because the silver layers form an electrode bus that lowers electrical resistance of the glass article.

Response to Arguments

10. Applicants' arguments filed 8/29/02 have been fully considered but they are not persuasive.

Counsel suggests that Claim 1 limits the claim to a glass substrate with a barrier layer formed directly on a glass substrate (see page 5, lines 23-34 of the Amendment filed 8/29/02), but that argument is unsustainable in view of Claim 2, which provides for an underlayer on the glass substrate with the barrier layer formed on the underlayer. In view of Claim 2, it is obvious that Claim 1 is written to include additional layers between the barrier layer and the glass substrate.

Counsel also suggests that the prior art article comprising a barrier layer functioning as an electrode does not read on the current claims, which limit the function of the barrier layer to a function other than as an electrode. The examiner respectfully disagrees. This newly added function limitation does not provide a patentable distinction between the claimed article and the article disclosed by Tsai.

Counsel also suggests that since Tsai does not mention that the "diffusion of metal ions of the electrode film into the glass substrate is substantially prevented by the barrier film", that Tsai does not read on the current claims. The examiner respectfully disagrees. This newly added function limitation does not provide a patentable distinction between the claimed article and the article of Tsai.

Regarding the newly added surface coverage limitation, the examiner defines a "substantially entire outer surface" to include the coverage disclosed by Tsai (Figure 2).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5665.

9-9-02

atp
October 2, 2002

Andrew T Piziali
Examiner
Art Unit 1775

DEBORAH JONES
SUPERVISORY PATENT EXAMINER